

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Michael D. Zoeckler	)	Examiner: Harmon, Christopher R.
	)	
Serial No.: 09/559,704	)	Art Unit: 3721
	)	
Filed: 04/27/2000	)	Attorney Docket No.: 7137 (R029 1056)
	)	
For: PAPERBOARD CARTONS WITH	)	
LAMINATED REINFORCING RIBBONS	)	
AND METHOD OF MAKING SAME	)	
	)	

**APPEAL BRIEF**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in triplicate pursuant to 37 C.F.R. 1.192 in reference to the  
Notice of Appeal dated May 12, 2006.

**1. REAL PARTY IN INTEREST**

The real party in interest in the present application is Graphic Packaging International, Inc.  
The original application was assigned to Riverwood International Corporation, and subsequently  
transferred to Graphic Packaging International, Inc., Marietta, Georgia.

**EXPRESS MAIL**

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**2. RELATED APPEALS AND INTERFERENCES**

Appellant refers the Board to appeals pending in U.S. Patent Application Nos. 09/971,469 and 09/818,023, which are grandchild and child applications of the present application, respectively. The appeals in those applications may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

**3. STATUS OF CLAIMS**

Claims 1-7, 9-16, and 25-34 are pending in this application and are subject to the present appeal. Claims 17-24 and 36-39 have been canceled as required by the Examiner as drawn to a non-elected invention. Claims 8 and 35 were canceled during prosecution. A copy of claims 1-7, 9-16, and 25-34 as currently pending are set forth in the attached Appendix.

**4. STATUS OF AMENDMENTS**

On July 1, 2004, Appellant filed a response to the April 5, 2004 first, non-final Office Action. In response, the Examiner issued a second, non-final Office Action on August 25, 2004 based upon the same art as the April 5, 2004 first, non-final Office Action. In response, Appellant filed a Notice of Appeal on September 1, 2004 upon which the Appeal Brief dated November 1, 2004, the Amended Appeal Brief dated December 1, 2004, the Substitute Amended Appeal Brief dated February 2, 2005, and the Reply Brief dated April 25, 2005 were based.

The Board reviewed the office action and remanded the application to the Examiner on March 24, 2006. In response, the Examiner improperly reopened prosecution by filing an Office Action dated April 19, 2006. Appellant immediately contacted Supervisory Patent Examiner Rada and requested withdrawal of the Office Action in favor of an Examiner's Answer to continue appeal of the present application. When Supervisor Rada refused to withdraw the Office Action of April 19, 2006, Appellant filed a Petition to the Commissioner dated May 12, 2006 to request that

prosecution not be reopened and to force the Examiner to file an Examiner's Answer that addressed all questions raised by the Board in the Remand. However, after waiting for over two and a half months for a decision on the Petition, Appellant has been informed by the Office of the Director (3700) that the Petition will not be decided or reviewed until November 2006. Since the Appeal could timely be before the Board (where Appellant has been trying to return this application) prior to November 2006, Appellant is filing the present Appeal Brief based on the Notice of Appeal filed on May 12, 2006, concurrently with the Petition.

No amendments have been filed after the second, non-final Office Action dated August 29, 2004.

#### 5. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with 37 CFR § 41.37, a concise explanation of the subject matter defined in each of the independent claims involved in the Appeal is set forth below in tabular format. References to pages and lines of the specification are designated "page: lines" and references to the drawings are indicated by reference characters.

1. A method of making paperboard cartons with selectively reinforced panels, said method comprising the steps of:	<b>When the blanks are converted, the ribbons of reinforcing paperboard laminated to the carton blanks form multiple layers of paperboard in selected portions of the cartons and thus reinforce the cartons in these portions. The locations of the ribbons are carefully determined in advance such that, when the carton blank is converted to a carton, the ribbons and thus reinforcement is provided in selected portions of the cartons such as, for example, in their side walls, where added strength and/or rigidity are required.</b> Reinforced paperboard cartons made by the method of this invention have been found to exhibit strength and rigidity in the reinforced portions that is comparable or superior to that of cartons made
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	from micro-flute. [22:1-22:12]
(a) advancing a web of noncorrugated paperboard along a path, the web of noncorrugated paperboard having a width and longitudinally extending panel portions that will become panels separated by fold lines in completed paperboard cartons;	<p>The fabrication line 11 in Fig. 1 has an upstream end 12 and a downstream end 13 and the various elements used in the making of paperboard blanks according to the invention flow along paths in a direction extending generally from the upstream end toward the downstream end of the line. <b>A large roll 14 of a paperboard web 17 is rotatably mounted on a pair of mandrels 16 located at the upstream end of the fabrication line 11. In carrying out the method of the invention, the paperboard web 17, which is pre-cut to a required width as described above, is drawn from the roll 17 and advanced along a path, generally indicated by arrows 15, that extends past the various stations of the fabrication line. [15:1-15:12]</b></p> <p>Mandrels 18, three of which are illustrated in Fig. 1, are disposed at spaced locations along the path 15 adjacent the upstream end 12 of the fabrication line 11. Ribbons 21 of reinforcing material, each having a width less than the width of the paperboard web 17, are rolled onto relatively narrow rolls 19 and the rolls 19 are rotatably mounted on the mandrels 18. <b>The ribbons 21 of reinforcing material are progressively drawn from the rolls 19 along with the web 17 and initially are disposed atop and move along the path 15 with the web 17. Each of the mandrels 18 may carry multiple rolls 19 of ribbons 21 and each of the rolls 19 may be positioned at any desired location across the width of the mandrel. Further, each of the ribbons 21 of reinforcing material may be cut to any desired width less than the width of the paperboard web 17. [15:19-16:8]</b></p> <p><b>As the web 17 and ribbons 21 are drawn from their respective rolls and advance along the path 15, the ribbons are positioned, according to the locations of their rolls 19 on mandrels 18, at predetermined locations across the width of</b></p>

	<p><b>the web 17.</b> In the configuration illustrated in Fig. 1, for example, the rolls 19 are positioned such that a double layer of ribbons 21 is located adjacent each of the opposed edge portions of the web, a single ribbon is located in the central portion of the web, and a pair of relatively narrow ribbons are disposed on either side of the centrally located ribbon. By appropriately positioning the rolls 19 on the mandrels 18, virtually any placement and configuration of ribbons 21 of reinforcing material may be obtained, as described in more detail below. [16:9-16:21]</p>
<p>(b) progressively applying and adhering at least one ribbon of reinforcing material to the advancing web of noncorrugated paperboard, the ribbon having a width less than the width of the web of noncorrugated paperboard and being positioned to overlie and adhere to substantially all of a selected panel portion of the web;</p>	<p>The paperboard web 17 advances from the guide rollers to the compression station 34, which includes a pair of main compression rollers 36, that also may function as pull rollers. <b>Likewise, the adhesive bearing paperboard ribbons 21 advance from the gluing station 28 toward the compression station 34 and toward the paperboard web 17. At the compression station 34, the paperboard ribbons 21 and paperboard web 17 pass between the main compression rollers 36. The compression rollers 36 are set to compress the reinforcing ribbons 21 and the web 17 together with sufficient pressure to bond the adhesive and thus the ribbons to the web, or to other underlying ribbons in cases where multiple laminations of ribbons are to be applied to the web 17. In this way, the ribbons are progressively applied to the advancing web of paperboard at selected locations across the width of the web, as determined by the placement of rolls 19 on mandrels 18. [20:1-20:16]</b></p>
<p>(c) cutting the web of noncorrugated paperboard to form carton blanks having panels; and</p>	<p>From the compression station 34, the paperboard web 17 with scored fold lines 27 and with the paperboard reinforcing ribbons 21 laminated thereto proceeds toward the downstream end 13 of the fabrication line 11 and toward a cutting station 37. <b>In the illustrated embodiment, the cutting station 37 includes a traditional rotary knife assembly 38, which rotates to cut the web 17</b></p>

	<p>across its width into rectangular sheets of a predetermined size. Each sheet has a width equal to the width of the paperboard web 17 and a length determined by the settings and operation of the rotary knife assembly 38. Means other than a rotary knife such as, for example, a traversing knife assembly or a platen cutter may be substituted for the rotary knife of the illustrated embodiment and these and other means for cutting the web should be considered equivalent to the illustrated rotary knife assembly. [20:17-21:7]</p> <p>Once the web 17 is cut into sheets 39, the sheets may be stacked and delivered to a die cutter, where the sheets are cut in a standard platen die-cutting operation to form carton blanks having the various tabs and panels necessary to form paperboard cartons embodying principles and features of the present invention. [21:8-21:13]</p>
(d) forming the carton blanks into cartons for receiving articles, the ribbon of reinforcing material reinforcing at least one panel of the cartons.	<p>When the blanks are converted, the ribbons of reinforcing paperboard laminated to the carton blanks form multiple layers of paperboard in selected portions of the cartons and thus reinforce the cartons in these portions. The locations of the ribbons are carefully determined in advance such that, when the carton blank is converted to a carton, the ribbons and thus reinforcement is provided in selected portions of the cartons such as, for example, in their side walls, where added strength and/or rigidity are required. Reinforced paperboard cartons made by the method of this invention have been found to exhibit strength and rigidity in the reinforced portions that is comparable or superior to that of cartons made from micro-flute. [22:1-22:12]</p>
25. A method of making paperboard carton blanks comprising the steps of:	<p>When the blanks are converted, the ribbons of reinforcing paperboard laminated to the carton blanks form multiple layers of paperboard in selected portions of the cartons and thus reinforce the cartons in these portions. The locations of the ribbons are carefully determined in</p>

	<p>advance such that, when the carton blank is converted to a carton, the ribbons and thus reinforcement is provided in selected portions of the cartons such as, for example, in their side walls, where added strength and/or rigidity are required. Reinforced paperboard cartons made by the method of this invention have been found to exhibit strength and rigidity in the reinforced portions that is comparable or superior to that of cartons made from micro-flute. [22:1-22:12]</p>
<p>(a) advancing a web of noncorrugated paperboard along a path, the web of paperboard having a width and longitudinally extending panel portions that will become panels separated by fold lines in completed carton blanks;</p>	<p>The fabrication line 11 in Fig. 1 has an upstream end 12 and a downstream end 13 and the various elements used in the making of paperboard blanks according to the invention flow along paths in a direction extending generally from the upstream end toward the downstream end of the line. <b>A large roll 14 of a paperboard web 17 is rotatably mounted on a pair of mandrels 16 located at the upstream end of the fabrication line 11. In carrying out the method of the invention, the paperboard web 17, which is pre-cut to a required width as described above, is drawn from the roll 17 and advanced along a path, generally indicated by arrows 15, that extends past the various stations of the fabrication line. [15:1-15:12]</b></p> <p>Mandrels 18, three of which are illustrated in Fig. 1, are disposed at spaced locations along the path 15 adjacent the upstream end 12 of the fabrication line 11. Ribbons 21 of reinforcing material, each having a width less than the width of the paperboard web 17, are rolled onto relatively narrow rolls 19 and the rolls 19 are rotatably mounted on the mandrels 18. <b>The ribbons 21 of reinforcing material are progressively drawn from the rolls 19 along with the web 17 and initially are disposed atop and move along the path 15 with the web 17. Each of the mandrels 18 may carry multiple rolls 19 of ribbons 21 and each of the rolls 19 may be positioned at any desired location across the width of the mandrel. Further, each of</b></p>

	<p>the ribbons 21 of reinforcing material may be cut to any desired width less than the width of the paperboard web 17. [15:19-16:8]</p> <p>As the web 17 and ribbons 21 are drawn from their respective rolls and advance along the path 15, the ribbons are positioned, according to the locations of their rolls 19 on mandrels 18, at predetermined locations across the width of the web 17. In the configuration illustrated in Fig. 1, for example, the rolls 19 are positioned such that a double layer of ribbons 21 is located adjacent each of the opposed edge portions of the web, a single ribbon is located in the central portion of the web, and a pair of relatively narrow ribbons are disposed on either side of the centrally located ribbon. By appropriately positioning the rolls 19 on the mandrels 18, virtually any placement and configuration of ribbons 21 of reinforcing material may be obtained, as described in more detail below. [16:9-16:21]</p>
<p>(b) laminating a ribbon of reinforcing material to the advancing web of noncorrugated paperboard, the ribbon having a width less than the width of the web of noncorrugated paperboard and being positioned on, and adhered to, substantially all of a longitudinally extending panel portion of the web of noncorrugated paperboard; and</p>	<p>The paperboard web 17 advances from the guide rollers to the compression station 34, which includes a pair of main compression rollers 36, that also may function as pull rollers. Likewise, the adhesive bearing paperboard ribbons 21 advance from the gluing station 28 toward the compression station 34 and toward the paperboard web 17. At the compression station 34, the paperboard ribbons 21 and paperboard web 17 pass between the main compression rollers 36. The compression rollers 36 are set to compress the reinforcing ribbons 21 and the web 17 together with sufficient pressure to bond the adhesive and thus the ribbons to the web, or to other underlying ribbons in cases where multiple laminations of ribbons are to be applied to the web 17. In this way, the ribbons are progressively applied to the advancing web of paperboard at selected locations across the width of the web, as determined by the placement of rolls</p>



	<p><b>19 on mandrels 18. [20:1-20:16]</b></p> <p><b>When the blanks are converted, the ribbons of reinforcing paperboard laminated to the carton blanks form multiple layers of paperboard in selected portions of the cartons and thus reinforce the cartons in these portions.</b> The locations of the ribbons are carefully determined in advance such that, when the carton blank is converted to a carton, the ribbons and thus reinforcement is provided in selected portions of the cartons such as, for example, in their side walls, where added strength and/or rigidity are required. Reinforced paperboard cartons made by the method of this invention have been found to exhibit strength and rigidity in the reinforced portions that is comparable or superior to that of cartons made from micro-flute. [22:1-22:12]</p>
<p>(c) cutting the web of noncorrugated paperboard and laminated ribbon across their length into carton blanks having panels, the laminated ribbon reinforcing at least one panel of each of the carton blanks.</p>	<p>From the compression station 34, the paperboard web 17 with scored fold lines 27 and with the paperboard reinforcing ribbons 21 laminated thereto proceeds toward the downstream end 13 of the fabrication line 11 and toward a cutting station 37. <b>In the illustrated embodiment, the cutting station 37 includes a traditional rotary knife assembly 38, which rotates to cut the web 17 across its width into rectangular sheets of a predetermined size. Each sheet has a width equal to the width of the paperboard web 17 and a length determined by the settings and operation of the rotary knife assembly 38.</b> Means other than a rotary knife such as, for example, a traversing knife assembly or a platen cutter may be substituted for the rotary knife of the illustrated embodiment and these and other means for cutting the web should be considered equivalent to the illustrated rotary knife assembly. [20:17-21:7]</p> <p><b>Once the web 17 is cut into sheets 39, the sheets may be stacked and delivered to a die cutter, where the sheets are cut in a standard platen die-cutting operation to form carton blanks having the various tabs</b></p>

	<b>and panels necessary to form paperboard cartons embodying principles and features of the present invention. [21:8-21:13]</b>
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**6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-3, 11-16, 25-29, and 34 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Stone* (U.S. Patent No. 5,551,938). Claims 4-7 and 30-33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Stone* in view of *Stokes* (U.S. Patent No. 1,880,288). Claims 1, 3-5, 7, 9-11, 16, 25, 29-32, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Lang* (U.S. Patent No. 5,147,480) in view of Campbell et al. (U.S. Patent No. 1,600,396).

**7. ARGUMENT**

**A. Claims 1-3, 11-16, 25-29, and 34 stand rejected as being anticipated by *Stone*.**

The second, non-final Action maintained the rejections of claims 1-3, 11-16, 25-29, and 34 under 35 U.S.C. 102(b) as being anticipated by *Stone*. In order for a reference to anticipate a claim, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. If each and every element as set forth in the claim is not found in the single prior art reference, the claim is not anticipated and rejections based upon 35 U.S.C. 102 are not supported. Specifically, 35 U.S.C. 102(b) states that:

a person shall be entitled to a patent unless...

...(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, ...

1. **Stone cannot anticipate claims 1-3, 11-16, 25-29, and 34 since it fails to teach all elements.**

In the April 19, 2006 Office Action, the Examiner stated: “Stone discloses a method for forming carton blanks comprising advancing a web of paperboard 42 along a path; progressively applying, with an adhesive, at least one ribbon of reinforcing material 38 with a width less than the paperboard substantially overlying a selected panel portion (56);...” Additionally, the Examiner’s Answer dated February 24, 2005 specified in § 10, entitled “Response to Argument”, that:

Stone teaches reinforcing substantially all of panel portion 58 by adhering the strip 32 to portions below. Stone provides “the collar 24 may be modified so that the collar is relatively narrow...or relatively wide” (column 6, lines 43-44), thereby adhering to substantially all of panel 58. Furthermore, an alternate embodiment taught by Stone (Fig. 5) comprises tear tape band 26 on the carton 10 not on the collar and a continuous reinforcing strip adhered to the inner surface.

The Examiner’s Answer continued by citing that:

The language “substantially all of a selected panel portion of the web” is extremely broad. Note: During patent examination, the claims are given the broadest reasonable interpretation consistent with the specification. See *In re Morris*, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1999). See MPEP §904.1. Therefore any portion of any panel that is adhered to and covered by another (reinforcing) layer could be reasonable selected.

In contrast, in the present application, independent claims 1 and 25 teach adhering a reinforcing ribbon to substantially all of a selected panel portion of the paperboard web. For example, claim 1 at step (b) provides:

(b) progressively applying and adhering at least one ribbon or reinforcing material to the advancing web of noncorrugated paperboard, the ribbon having a width less than the width of **the web of noncorrugated paperboard and being positioned to**

**overlie and adhere to substantially all of a selected panel portion of the web;**

*Stone* does not disclose adhesion of a reinforcing ribbon to substantially all of a selected panel portion of the web. Even if the Examiner considers the language “substantially all of a selected panel portion of the web” broad, such phrase is definite enough to allow one of ordinary skill to ascertain the scope of the claim. To wit, the Examiner failed to reject this claim limitation as indefinite at any time during examination. Accordingly, the claims should indeed be given “the broadest reasonable interpretation consistent with the specification.” However, the applied reference(s) must still show each and every feature to reject a claim. *Stone* fails to show each and every feature of the claim regardless of the breadth of the interpretation.

The *Stone* reference entirely fails to disclose a reinforcing material “positioned to overlie and adhere to substantially all of a selected panel portion of the web” as claimed. *Stone* does not, and cannot, show adherence of a reinforcing material over the panel portions selected by the Examiner. In fact, the carton (actually a flip-top box) of *Stone* would be inoperable if the element that the Examiner equates to a reinforcing ribbon (it actually is nothing more than the collar that aligns the box top) was so adhered. Specifically, upon erection of the *Stone* flip-top box carton, panel portion 58 becomes the openable lid’s depending peripheral lips as shown in Fig. 4. Thus, clearly, if the strip 24 were “adhered” to the panel portion 58, the lid would not open because the lips of the lid would be adhered to the rim formed by strip 24.

Further, the points of adhesion in *Stone* cannot read on the claim limitation of adhering to substantially all of a selected panel portion because the collar is only adhered at approximately only half of any selected panel. Specifically, *Stone* states in column 3, line 66 through column 4, line 2 that in order to

permit the lid 30 to be raised upwardly from the base section 32 while the collar 24 is retained on the base section 32 (FIG. 4), the collar 24 is adhered to the carton 10 only at locations below the tear strip 27.

Further, *Stone* continues in column 5, lines 3-5 that

the strip 38 of collar material is simultaneous [sic] cut and scored to produce a collar blank 46 which is also illustrated in FIG. 3. The collar blank 46 is fixedly adhered to the carton blank 44 at locations to the right of the tear-tape band 26 and the tear strip 27 (as viewed in FIG. 3).

As shown in the attached marked up Fig. 3, each of the panel portions 56 and 58 comprise approximately equal sized sections to the left and right of tear strip 27. Since panel 56 or 58 can only be adhered on one side of the tear strip 27 and since a claim limitation of adhesion to substantially all of a panel is not met by a teaching of adhesion to approximately half of the panel, panels 56 and 58 cannot meet the definite limitations of independent claims 1 and 25.

Additionally, the Examiner's Answer states that:

Furthermore, *Stone* specifically discloses modifying the width of the reinforcing collar 24 (also reinforcing strip 38) providing "the collar 24 may be modified so that the collar is relatively narrow ... or relatively wide" column 6, lines 43-44. Widening of the strip 38 would anticipate appellant's narrow interpretation of this limitation ie. the smallest "selected panel portion" 50 would be substantially covered and adhered to by reinforcing material 38; see figure 3.

Appellant disagrees. Even if this assertion by the Examiner were true and the box of *Stone* was modified as suggested by the Examiner, *Stone* would continue to fail to disclose the limitations of claims 1 and 25. As shown above, *Stone* specifies in column 3, line 66 through column 4, line 2 that in order to "permit the lid 30 to be raised upwardly from the base section 32 while the collar 24 is retained on the base section 32 (FIG. 4), the collar 24 is adhered to the carton 10 only at locations below the tear strip 27." Thus, even if the strip 38 were widened as

proposed by the Examiner, the collar would continue to be adhered only at locations below the tear strip 27, continuing to fail to disclose adhesion to substantially all of a selected panel portion as claimed. *Stone* fails entirely to provide a teaching, suggestion, or even inherent support for the Examiner's proposed change. Further, as discussed above, since *Stone* is a flip-top box, adhesion of substantially all of a panel of the collar would destroy the functionality of the reference. Since destroying the functionality of a reference cannot support modification of a reference, the Examiner's proposal is improper.

*Stone* does not disclose a reinforcing ribbon that overlies substantially all of, and adheres to, a selected panel portion. Further, modifying *Stone* to have panel portion 58 adhered to ribbon 38 would destroy the intent and function of the *Stone* box. Thus, rejections based upon *Stone* should be withdrawn as improper.

**B. Claims 4-7 and 30-33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of *Stone* and *Stokes*.**

The April 19, 2006 Office Action maintained the rejection of claims 4-7 and 30-33 under 35 U.S.C. 103(a) as being unpatentable as obvious over *Stone* in view of *Stokes*. The basic test for non-obvious subject matter is whether the claimed subject matter would have been obvious to a person having ordinary skill in the art to which the subject matter pertains in contemplation of the prior art. The United States Supreme Court in Graham v. John Deere & Co., 383 U.S. 1 (1966), set forth the factual inquiries to be considered:

- (1) determining the scope and contents of the prior art;
- (2) ascertaining the differences between the prior art and the claims at issue;
- (3) resolving the level of ordinary skill in the pertinent art.

In determining the scope and content of the prior art, the Examiner must first consider the nature of the problem on which the inventor was working. Once this has been established, the

Examiner must select, for purposes of comparing and contrasting with the claims at issue, prior art references that are reasonably pertinent to that problem (e.g., the inventor's field of endeavor). See Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc., 21 F.3d 1068, 1071 (Fed. Cir. 1994). In selecting and applying/combining references, hindsight must be avoided at all costs.

The second factor described in Graham requires ascertaining the differences between the cited prior art and the claims at issue. In the instance case, the references fail to disclose the claimed invention, that is, claimed elements are absent.

In resolving the level of ordinary skill in the pertinent art, as required by the third factor of Graham, the Examiner must place himself into the shoes of a person of ordinary skill in the art at the time the invention was made. The hypothetical person skilled in the art is one who thinks along lines of conventional wisdom in the art and one who does not have the benefit of hindsight.

In order to establish a *prima facie* case of obviousness, it is necessary for the Examiner to present evidence, preferably in the form of some teaching, suggestion, incentive, or inference in the applied prior art, or in the form of generally available knowledge that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. Ex parte Levengood, 28 USPQ2d 1300, 1301 (Bd. Pat. App. & Interf. 1993); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). The legal conclusion of obviousness must be supported by facts or it cannot stand. See Graham. A rejection based on 35 U.S.C. § 103(a) therefore clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art or "viewed after the event." Goodyear Co. v. Ray-O-Vac Co., 321 U.S. 275, 279, 64 S.Ct. 593, 88 L.Ed. 721 (1944). The

proper inquiry thus is whether bringing the references together was obvious and not, whether one of ordinary skill, having the invention before him, would find it obvious through hindsight to construct the invention. Accordingly, an Examiner cannot establish obviousness by locating references that describe various aspects of the pending application's invention without also providing evidence of the motivating force that would lead one skilled in the art to do what the inventor has done.

The Examiner states on page 4 of the April 19, 2006 Office Action that:

Claims 4-7 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (US 5,551,938) in view of Stokes (US 1,880,288).

Stone does not disclose a plurality of reinforcing ribbons, however Stokes teaches reinforcing carton blanks with ribbons (t); see figures 1-1a. It would have obvious to one of ordinary skill in the art to use the teachings of Stokes in the invention to Stone in order to reinforce more than one side of the carton for greater strength.

Appellant continues to traverse the Examiner's rejection because both *Stone* and *Stokes* fail to provide a teaching or suggestion to combine their teachings. Further, even if such combination could be made, the resulting combination would not render the claims obvious. As noted above, the rejection of the independent claims based upon the *Stone* reference under 35 U.S.C. 102(b) are improper since *Stone* fails to disclose each and every element of the claimed invention and since *Stone* cannot be modified to arrive at the claimed invention without destroying the functionality of the *Stone* box. *Stokes* fails to make up for the inadequacies of *Stone*, since *Stokes* fails to teach or suggest the claimed ribbon of reinforcing material that overlies and adheres to substantially all of a selected panel portion. In fact, there cannot logically be any motivation to adhere the rim 24 of *Stone* to panel 58, regardless of the secondary art combination suggested, since one of ordinary skill would never be motivated to perform a non-



functional modification of *Stone*. Without such teaching, suggestion, or motivation, the combination rejection cannot stand as applied.

**C. Claims 1, 3-5, 7, 9-11, 16, 25, 29-32, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Lang* in view of *Campbell*.**

In response to the Remand by the Board dated March 24, 2006, the Examiner reopened prosecution in part to address the Board's questions regarding the single reference rejection under 35 U.S.C. § 103(a) based on *Lang*. The April 19, 2006 Office Action rejected claims 1, 3-5, 7, 9-11, 16, 25, 29-32, and 34 under 35 U.S.C. 103(a) as being unpatentable over *Lang* in view of *Campbell*. These rejections are improper and should be withdrawn.

**1. The combination of *Lang* and *Campbell* fails to teach or suggest each and every element of the claims.**

In the April 19, 2006 Office Action, the Examiner stated:

Lang discloses a method of making paperboard cartons comprising advancing a web of paperboard 48 to a laminator/reinforcer, which applies at least one layer of material to the paperboard; see figures 3 and 4. The web is then cut/scored and then formed into cartons. Lang discloses printing on the reinforcing layers. Lang does not disclose the use of laminating non-corrugated material, however, Campbell teaches reinforcing non-corrugated paperboard as well as corrugated paperboard; see column 1 lines 1-5 and 37-44. It would have been obvious to a person of ordinary skill in the art to use the method of Lang on non-corrugated paperboard as described by Campbell.

Instead of providing a teaching or suggestion in *Lang* or in another reference of the item of OFFICIAL NOTICE (that at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the method of *Lang* on non-corrugated paperboard), the Examiner rejected the claims as being obvious over the combination of *Lang* in view of

*Campbell*. Appellant traverses the rejections based upon *Lang* in view of *Campbell* since neither *Lang* nor *Campbell* provides a motivation to combine the references.

*Lang* merely teaches applying a “finishing layer” onto a corrugated material, with the majority of its disclosure detailing application of a finished layer to a “double backing layer” of a corrugated material. The double backing layer is the side of the corrugated material that will become the outside of a box. Although *Lang* mentions the possibility of applying the finish layer directly to the corrugated core to form both the finish layer and the double backing layer, *Lang* labels this method inferior and teaches against its use. Regardless, the finish layer in *Lang* is not applied to a non-corrugated web of paperboard as claimed in the present application.

*Lang* fails to disclose, teach, or suggest applications to non-corrugated paperboard. *Campbell* fails to make up for the inadequacies of *Lang* since *Campbell* fails to provide a teaching or suggestion to modify *Lang* to reach the claimed invention. The Examiner asserts that “Campbell teaches reinforcing non-corrugated paperboard as well as corrugated paperboard; see column 1 lines 1-5 and 37-44. It would have been obvious to a person of ordinary skill in the art to use the method of *Lang* on non-corrugated paperboard as described by *Campbell*.” Applicant traverses this reasoning since neither *Lang* nor *Campbell* provides a teaching or suggestion to combine their diverse inventions to reach the claimed invention.

According to MPEP 2143.01, merely finding all pieces of a claim in various references is inadequate to support a prima facie case of obviousness:

The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a prima facie case of obvious was held improper. The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

The Examiner merely found a reference that mentioned both corrugated and non-corrugated (*Campbell*) to “support” his rejection of Claims 1, 3-5, 7, 9-11, 16, 25, 29-32, and 34 based on *Lang*. This is a wholly inadequate imposition of a rejection and fails entirely to provide a prima facie case of obviousness. Without providing a teaching or suggestion in the references that suggests the proposed combination, the rejections under 35 U.S.C. § 103(a) based on the combination of *Lang* and *Campbell* are improper as lacking a proper basis.

The present invention produces a paperboard carton that is not corrugated in certain cartons where corrugated is not practical or viable. In order to do this, certain panel portions of the carton blank must be enhanced in strength beyond their inherent strength. Because *Lang* teaches standard corrugated paperboard, the finish layer therein does not need to provide reinforcement, is not applied for this purpose, and does not teach such strength enhancement. The present invention is concerned with providing an alternative to corrugation, which typically is much more costly to produce. Corrugated products suffer from many other disadvantages, including being more expensive to ship, since the greater thickness of corrugated materials limits the number of blanks able to be stacked on pallets. Corrugated materials also require specialized machinery to convert the corrugated blanks to cartons and lack the capability of printing high quality graphics thereon. The commercial success in the industry of products formed by the presently claimed method is yet another indication (a “secondary indicia of non-obviousness”) that the present invention is non-obvious and thus a patentable advance over corrugated products, such as those detailed in *Lang*. Thus, the rejections under 35 U.S.C. 103(a) based on *Lang* in view of *Campbell* should be withdrawn as improper since one would not be motivated to combine their diverse teachings.

Cartons made according to the present invention have enjoyed substantial commercial success as detailed in the Declaration Under 37 CFR 1.132 of Steve McLary as filed with the Preliminary Amendment accompanying the RCE filed March 15, 2004. Such commercial success is strong evidence of non-obviousness. The Declaration of Steve McLary details substantial and growing sales of the present product in the industry.

The methods of *Lang* are at least two steps removed from the claims of the present application, with micro-flute being a not completely successful attempt to address the drawbacks of using corrugated materials as taught by *Lang*. Regardless of what *Campbell* teaches, *Lang* fails to provide a basis for modifying its teachings to encompass the claimed invention. These other products have been introduced in place of corrugation to improve strength while reducing costs. The very fact that micro-flute was developed as an alternative to corrugation is an attempt by others to solve the problems addressed by the method of the present invention in an inferior way. Certain segments of the packaging industry (e.g. drink cartons) are not suitable for corrugated boxes or even micro-flute, but nevertheless require high strength containers that can be stacked. Although micro-flute was an attempted replacement for corrugation, it is more expensive than cartons according to the present invention, heavier, and not compatible with much packaging machinery. The method of the present invention produces a non-corrugated container that is compatible with current packaging machinery, that is much less expensive than micro-flute or corrugation, and that is substantially stronger than single sheet paperboard cartons to enhance stackability.

**2. A prima facie case of obviousness based on *Lang* has not been shown.**

As the Examiner has acknowledged, *Lang* does not teach or suggest the use of laminating non-corrugating material as taught by the claims. The Examiner then stated that one of ordinary

skill would be motivated to use the teachings of *Campbell* to use the method of *Lang* on non-corrugated paperboard. This is clearly not true. In fact, much of *Lang* discusses applying thin finish layers to corrugated material. If *Lang* applied a finish layer to thin, non-corrugated material, the resulting blanks and cartons would be unsuitable for the application *Lang* intends. *Campbell* fails to describe how its teachings make up for this and other inadequacies. According to MPEP 2142, the Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of non-obviousness. To establish a prima facie case of obviousness, the three basic criteria enumerated in the Graham test above must be met. The initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, the references must either expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of evidence as to why the claimed invention would have been obvious in light of the teachings of the reference. If the prima facie case of obviousness has not been met and is traversed by the applicant, the burden shifts back to the Examiner to establish that a prima facie case of obviousness is met.

Since the rejections based upon *Lang* and *Campbell* are applied under 35 U.S.C. 103(a), the suggestion to modify the reference to reach the metes and bounds of the claimed invention must be disclosed in *Lang*, in *Campbell*, or must be obvious and actually “well known” in the art. Appellant traverses the rejections under 35 U.S.C. 103(a) since neither *Lang* nor *Campbell* discloses such teaching and thus a prima facie case has not been established.

Accordingly, the rejections based upon *Lang* and *Campbell* should be removed as improper and moot.

**8. CLAIMS APPENDIX**

A claims appendix detailing the claims involved in the Appeal is attached hereto beginning after page 23.

**9. EVIDENCE APPENDIX**

The Examiner indicated in the Notification of Non-Compliance with 37 CFR 1.192(c) that: “Note also: the affidavit submitted with the supplemental appeal brief will not be considered; see 37 CFR § 1.116.”

This indication by the Examiner is clearly improper. 37 CFR § 1.116 prohibits only the entry of new affidavits after final. As indicated in Section 9 of the Amended Appeal Brief filed December 1, 2004, the Affidavit submitted in the Evidence Appendix was filed with a Preliminary Amendment accompanying the RCE filed March 15, 2004 and was provided for the benefit of the Board for use in the appeal. This Affidavit is not improper under 37 CFR § 1.116 since it is not a “new affidavit.” Accordingly, the Appellant requests that the Examiner withdraw his objections to the Affidavit and indicate that the Affidavit can be considered in the appeal.

A copy of this Affidavit is Attached in the Evidence Appendix. No additional evidence has been entered or relied upon in this Appeal.

**10. RELATED PROCEEDINGS APPENDIX**

With reference to paragraph 2 above, Appellant refers the Board to appeals pending in U.S. Patent Application Nos. 09/971,469 and 09/818,023, which are grandchild and child applications of the present application, respectively. The appeals in those applications may be related to, directly affect or be directly affected by, or have a bearing on the Board’s decision in the pending appeal.

No decisions have been rendered in the proceedings identified in the related Appeals and Interferences section.

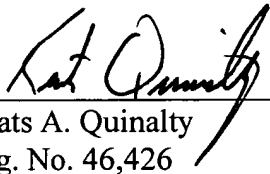
**CONCLUSION**

Claims 1-3, 11-16, 25-29, and 34 are not anticipated by *Stone* under 35 U.S.C. § 102(b).  
Claims 4-7 and 30-33 are not rendered obvious by *Stone* in view of *Stokes* under 35 U.S.C. 103(a). Claims 1, 3-5, 7, 9-11, 16, 25, 29-32, and 34 are not rendered obvious by *Lang* under 35 U.S.C. § 103(a).

For the foregoing reasons, the rejections of claims 1-7, 9-16, and 25-34 by the U.S. Patent and Trademark Office are in error. Reversal of the rejections and allowance of the application is respectfully requested.

8/3/06  
Date

Respectfully submitted,

  
Keats A. Quinalty  
Reg. No. 46,426  
Attorney for Appellant

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## **CLAIMS APPENDIX**

1. A method of making paperboard cartons with selectively reinforced panels, said method comprising the steps of:

(a) advancing a web of noncorrugated paperboard along a path, the web of noncorrugated paperboard having a width and longitudinally extending panel portions that will become panels separated by fold lines in completed paperboard cartons;

(b) progressively applying and adhering at least one ribbon of reinforcing material to the advancing web of noncorrugated paperboard, the ribbon having a width less than the width of the web of noncorrugated paperboard and being positioned to overlies and adhere to substantially all of a selected panel portion of the web;

(c) cutting the web of noncorrugated paperboard to form carton blanks having panels;  
and

(d) forming the carton blanks into cartons for receiving articles, the ribbon of reinforcing material reinforcing at least one panel of the cartons.

2. A method of making reinforced paperboard cartons as claimed in claim 1 and where in step (b) the at least one ribbon of reinforcing material is a ribbon of paperboard.

3. A method of making reinforced paperboard cartons as claimed in claim 1 and wherein step (b) further comprises advancing the at least one ribbon of reinforcing material along a path, applying adhesive to the advancing ribbon, and progressively bringing the ribbon into engagement with the advancing web of noncorrugated paperboard to adhere the ribbon to the web.



4. A method of making reinforced paperboard cartons as claimed in claim 1 and wherein step (b) comprises applying a plurality of ribbons of reinforcing material to the advancing web of noncorrugated paperboard, each of the ribbons of reinforcing material being positioned to overlie substantially all of a selected panel portion of the web.

5. A method of making reinforced paperboard cartons as claimed in claim 4 and wherein the web of noncorrugated paperboard has panel portions extending along opposed edge portions and wherein at least one of the plurality of ribbons of reinforcing material is positioned to overlie substantially all of a panel portion extending along an opposed edge portion of the web of paperboard.

6. A method of making reinforced paperboard cartons as claimed in claim 4 and wherein step (b) further comprises applying and adhering a first ribbon of reinforcing material to said web of noncorrugated paperboard overlying substantially all of a panel portion thereof and applying and adhering a second ribbon of reinforcing material atop the first ribbon of reinforcing material to form a double thickness of reinforcing material overlying the panel portion of the web.

7. A method of making reinforced paperboard cartons as claimed in claim 4 and wherein the web of noncorrugated paperboard has opposed edges and a panel portion intermediate the opposed edges, and wherein at least one of the ribbons of reinforcing material is positioned to overlie substantially all of the panel portion intermediate the opposed edges of the web.

8. (Canceled)

9. A method of making reinforced paperboard cartons as claimed in claim 1 and further comprising the step of printing indicia on the at least one ribbon of reinforcing material, the indicia being visible from the inside of cartons formed in step (d).

10. A method of making reinforced paperboard cartons as claimed in claim 9 and wherein the indicia is printed on the at least one ribbon of reinforcing material before the ribbon is applied and adhered to the web of noncorrugated paperboard in step (b).

11. A method of making reinforced paperboard cartons as claimed in claim 1 and further comprising the step of scoring fold lines between panel portions of the web of noncorrugated paperboard along which the carton blanks are folded in step (d) to form cartons.

12. A method of making reinforced paperboard cartons as claimed in claim 11 and where in step (b) the at least one ribbon of reinforcing material is positioned on the web so as not to cover a fold line.

13. A method of making reinforced paperboard cartons as claimed in claim 12 and wherein the at least one ribbon of reinforcing material has an edge and wherein the step of scoring fold lines includes forming at least one fold line adjacent the edge of the ribbon.

14. A method of making reinforced paperboard cartons as claimed in claim 1 and where in step (b) the at least one ribbon of reinforcing material comprises paperboard trim.

15. A method of making reinforced paperboard cartons as claimed in claim 1 and were in step (b) the at least one ribbon of reinforcing material comprises paperboard cull.

16. A reinforced paperboard carton made by the method of claim 1.

17.-24. (Canceled)

25. A method of making paperboard carton blanks comprising the steps of:

(a) advancing a web of noncorrugated paperboard along a path, the web of paperboard having a width and longitudinally extending panel portions that will become panels separated by fold lines in completed carton blanks;

(b) laminating a ribbon of reinforcing material to the advancing web of noncorrugated paperboard, the ribbon having a width less than the width of the web of noncorrugated paperboard and being positioned on, and adhered to, substantially all of a longitudinally extending panel portion of the web of noncorrugated paperboard; and

(c) cutting the web of noncorrugated paperboard and laminated ribbon across their length into carton blanks having panels, the laminated ribbon reinforcing at least one panel of each of the carton blanks.

26. A method of making paperboard carton blanks as claimed in claim 25 and where in step (b) the ribbon of reinforcing material is a ribbon of paperboard.

27. A method of making paperboard carton blanks as claimed in claim 26 and wherein the ribbon of paperboard is paperboard trim.

28. A method of making paperboard carton blanks as claimed in claim 26 and wherein the ribbon of paperboard is paperboard cull.

29. A method of making paperboard carton blanks as claimed in claim 25 and wherein step (b) comprises advancing the ribbon of reinforcing material along a path, applying adhesive to the ribbon of reinforcing material, and bringing the ribbon into contact with the web to adhere the ribbon to the web.

30. A method of making paperboard carton blanks as claimed in claim 25 and wherein step (b) comprises laminating more than one ribbon of reinforcing material to the advancing web of noncorrugated paperboard, each ribbon having a width less than the width of the web of noncorrugated paperboard and being positioned within corresponding longitudinally extending panel portions of the web of paperboard to provide reinforcement in selected panels of the blank.

31. A method of making paperboard carton blanks as claimed in claim 30 and wherein panel portions extend along opposed edges of the noncorrugated paperboard web and wherein at least

one of the ribbons of reinforcing material is positioned within a panel portion along an edge of the web of noncorrugated paperboard.

32. A method of making paperboard carton blanks as claimed in claim 30 and wherein the web of noncorrugated paperboard has opposed edges wherein a panel portion extends along the web intermediate the opposed edges, at least one of the ribbons of reinforcing material being applied within the panel portion intermediate the edges of the web of noncorrugated paperboard.

33. A method of making paperboard carton blanks as claimed in claim 30 and wherein at least one of the ribbons of reinforcing material is applied atop another one of the ribbons of reinforcing material within the panel portion to form multiple layers of reinforcing material within the panel portion of said web of noncorrugated paperboard.

34. A paperboard carton blank made by the process of claim 25.

35.-39. (Canceled)

## **EVIDENCE APPENDIX**

A copy of the Declaration Under 37 CFR 1.132 of Steve McLary is attached.

**PATENTS**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: )  
                  **MICHAEL ZOECKLER** )  
Serial No:     **09/559,704**                    )     Art Unit:     **3721**  
Filed:         **April 27, 2000**                )     Examiner:     **Harmon, Christopher R.**  
For:     **PAPERBOARD CARTONS WITH LAMINATED REINFORCING RIBBONS**  
          **AND METHOD OF MAKING**

Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.132 OF STEVE McLARY**

I, Steve McLary, hereby make the following Declaration:

I am employed as Intellectual Property Counsel to Graphic Packaging International, Inc. ("GPI") (formerly known as Riverwood International Corporation), the assignee of the above-referenced patent application, and am authorized to make this Declaration on behalf of said GPI.

I am familiar with commercial sales and marketing activity surrounding the reinforced cartons manufactured by GPI ("Carton Products"). These are the products that embody the invention disclosed and claimed in the above referenced patent application.

GPI's Carton products were first introduced to potential customers in about September, 2001, some two and one-half years (2 ½) years prior to the execution of this Declaration.

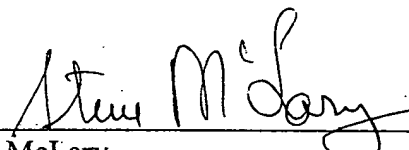
Since introducing the Carton Products, GPI has received orders for over 25 million units of the products, some of which have been produced by GPI and delivered to customers and

others of which are in production. These initial orders represent about \$5,000,000 in sales since product introduction.

GPI has sold the Carton Products to numerous customers, including major U.S. packagers such as SoftPac Industries, Kellogg's, Quaker Oats and Kraft Foods. Based upon feedback from such customers, GPI expects to receive orders for the Carton Products from some or all of these companies totaling approximately 30 to 40 million units within the next six to nine months. Such orders will represent about \$8,000,000 in sales of the Carton Products.

All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true. I acknowledge the warning that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the application or any patent issuing thereon.

This the 11<sup>th</sup> day of March, 2004.

  
\_\_\_\_\_  
Steve McLary  
Intellectual Property Counsel  
Graphic Packaging International, Inc.



### **RELATED PROCEEDINGS APPENDIX**

With reference to paragraph 2 above, Appellant refers the Board to appeals pending in U.S. Patent Application Nos. 09/971,469 and 09/818,023, which are grandchild and child applications of the present application, respectively. The appeals in those applications may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

No decisions have been rendered in the proceedings identified in the related Appeals and Interferences section.